



INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet	1	of	5
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Complete if Known

Application Number	10/567,917
Filing Date	February 6, 2006
First Named Inventor	James R. Link
Art Unit	1763
Examiner Name	Unassigned R. Culbert
Attorney Docket Number	0321.70917

U. S. PATENT DOCUMENTS

FOREIGN PATENT DOCUMENTS

**Examiner
Signature**

/Roberts' Culbert/

Date _____

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08/13/2007

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		Art Unit	1763		
		Examiner Name	Unassigned		
Sheet	2	of	5	Attorney Docket Number	0321.70917

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
/RC/		Y. Xia, J.A. Rogers, K.E. Paul, G. Whitesides, "Unconventional Methods for Fabricating and Patterning Nanostructures", Chem. Rev., 1999, Vol. 99, pp. 1823-48	
/RC/		M.D. Porter, T.B. Bright, D.L. Allara, C.D. Chidsey, "Spontaneously Organized Molecular Assemblies, 4. Structural Characterization of n-Alkyl Thiol Monolayers on Gold by Optical Ellipsometry, Infrared Spectroscopy and Electrochemistry, J. Am. Chem. Soc., 1987, Vol. 109, p. 3559-3568.	
/RC/		So-Jung Park, A.A. Lazarides, C.A. Mirkin, R.L. Letsinger, "Directed Assembly of Periodic Materials from Protein and Oligonucleotide-Modified Nanoparticle Building Blocks," Angew. Chem. Int. Ed. 40, 2001, pp. 2909-12	
/RC/		D. Gerion, W.J. Parak, S.C. Williams, D. Zanchet, C.M. Micheel, A.P. Alivisator, "Sorting Florescent Nanocrystals with DNA," J. Am. Chem. Soc., Vol. 124, 2002, pp. 7070-74	
/RC/		C.J. Loweth, W.B. Caldwell, X. Peng, A.P. Alivisatos, P.G. Schultz, "DNA-Based Assembly of Gold Nanocrystals," Angew. Chem. Int. Ed., Vol. 38, 1999, pp. 1808-12	
/RC/		C. Mao, V.R. Thalladi, D.B. Wolfe, S. Whitesides, G.M. Whitesides, "Self-Assembled Aggregates that Spontaneously Reconfigure their Structure when their Environment Changes", J. Am. Chem. Soc., Vol. 124, 2002, pp. 14508-509	
/RC/		V.M. Shelekhina, O.A. Prokhorov, P.A. Vityaz, A.P. Stupak, S.F. Gaponenko, N.V. Gaponenko, "Towards 3D Photonic Crystals", Synthetic Metals, Vol. 124, 2001, pp. 137-139	
/RC/		J.E.G.J. Wijnhoven, W.L. Vos, "Preparation of Photonic Crystals Made of Air Spheres in Titania", Science, Vol. 281, no. 5378, August 7, 1998, p. 802-804	
/RC/		X. Xu, G. Friedman, K.D. Humfeld, S.A. Majetich, S.A. Asher, "Synthesis and Utilization of Monodisperse Superparamagnetic Colloidal Particles for Magnetically Controllable Photonic Crystals", Chem. Mater., Vol. 14, No. 3, 2002, pp. 1249-56	
/RC/		K. Lee, S.A. Asher, "Photonic Crystal Chemical Sensors: pH and Ionic Strength", J. Am. Chem. Soc., Vol. 122, No. 39, 2000, pp. 9534-37	

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**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

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Application Number	10/567,917
Filing Date	February 6, 2006
First Named Inventor	James R. Link
Art Unit	1763
Examiner Name	Unassigned
Attorney Docket Number	0321.70917

Sheet 3 of 5

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
/RC/		J.R. Link, M.J. Sailor, "Smart Dust: Self-Assembling, Self-Orienting Photonic Crystals of Porous Si", Applied Physical Sciences, Aug. 12, 2003.	
/RC/		X. Xu, S.A. Majetich, S.A. Asher, "Mesoscopic Monodisperse Ferromagnetic Colloids enable Magnetically Controlled Photonic Crystals," J. Am. Chem. Soc., Vol. 124, 2002, 13864-68	
/RC/		C.P. Collier, T. Vossmeier, J.R. Heath, "Nanocrystal Superlattices," Annu. Rev. Phys. Chem., Vol. 49, 1998, pp. 371-404	
/RC/		C.A. Mirkin, R.L. Letsinger, R.C. Mucic, J.J. Storhoff, "A DNA-Based Method for Rationally Assembling Nanoparticles into Macroscopic Materials," Letters to Nature, Vol. 382, August 15, 1996, pp. 607-609	
/RC/		T.A. Schmedake, F. Cunin, J.R. Link, M.J. Sailor, "Standoff Detection of Chemicals using Porous Silicon "Smart Dust" Particles," Adv. Mater., Vol. 14, no. 18, September 16, 2002, pp. 1270-72	
/RC/		G. Vincent, "Optical Properties of Porous Silicon Superlattices," Appl. Phys. Lett., Vol. 64, May 2, 1994, pp. 2367-69	
/RC/		M.P. Stewart, J.M. Buriak, "Photopatterned Hydrosilylation on Porous Silicon," Angew. Chem. Int. Ed. Engl., Vol. 37, 1998, pp. 3257-60	
/RC/		R. Boukherroub, J.T.C. Wojtyk, D.D.M. Wayner, D.J. Lockwood, "Thermal Hydrosilylation of Undecylenic Acid with Porous Silicon," J. Electrochem Soc., Vol. 149, 2002, pp. 59-63	
/RC/		F. Cunin, T.A. Schmedake, J.R. Link, Y.Y. Li, J. Koh, S.N. Bhatia, M.J. Sailor, "Biomolecular Screening with Encoded Porous-Silicon Photonic Crystals," Nat. Mater., Vol. 1, 2002, pp. 39-41	

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/RC/		M.G. Berger, R. Arens-Fischer, M. Thoenissen, M. Krueger, S. Billat, H. Lueth, S. Hilbrich, W. Theiss, P. Grosse, "Dielectric Filters Made of PS: Advanced Performance by Oxidation and New Layer Structures," Thin Solid Films, Vol. 297, 1997, pp. 237-240	
/RC/		C. Gurtner, A. W. Wun, M.J. Sailor, "Surface Modification of Porous Silicon by Electrochemical Reduction of Organo Halides," Angew. Chem. Int. Ed. Engl., Vol. 38, 1999, pp. 1966-68	
/RC/		J.M. Buriak, "Organometallic Chemistry on Silicon and Germanium Surfaces," Chem. Rev., Washington, D.C., Vol. 102, No. 5, 2002, pp. 1272-1308	
/RC/		P.A. Snow, E.K. Squire, P.S.J. Russell, L.T. Canham, "Vapor Sensing Using the Optical Properties of Porous Silicon Bragg Mirrors," J. Appl. Phys., Vol. 86, No. 4, August 15, 1999, pp 1781-84	
/RC/		T. Gao, J. Gao, M.J. Sailor, "Tuning the Response and Stability of Thin Film Mesoporous Silicon Vapor Sensors by Surface Modification," Langmuir, Vol. 18, 2002, pp. 9953-57	
/RC/		H. Arwin, M. Gavutis, J. Gustafsson, M. Schultzberg, S. Zangoie, P. Tengvall, "Protein Adsorption in Thin Porous Silicon Layers," Phys. Status Sol. (a), Vol. 182, 2000, pp. 515-520	
/RC/		B.E. Collins, K.P. Dancil, G. Abbi, M.J. Sailor, "Determining Protein Size Using Electrochemically Machined Pore Gradient in Silicon," Adv. Func. Mat., Vol. 12, No. 3, March 2002, pp. 187-191	
/RC/		S. Chan, S.R. Horner, B.L. Miller, P.M. Fauchet, "Identification of Gram Negative Bacteria Using Nanoscale Silicon Microcavities," J. Am. Chem. Soc., Vol. 123, 2001, pp. 11797-98	
/RC/		L.T. Canham, M.P. Stewart, J.M. Buriak, C.L. Reeves, M. Anderson, E.K. Squire, P. Allcock, P.A. Snow, "Derivatized Porous Silicon Mirrors: Implantable Optical Components with Slow Resorbability," Phys. Stat. Sol. (a), Vol. 182, 2000, pp. 521-525	
/RC/		A.H. Mayne, S.C. Bayliss, P. Barr, M. Tobin, L.D. Buckberry, "Biologically Interfaced Porous Silicon Devices," Phys. Stat. Sol. (a), Vol. 182, 2000, pp. 505-513	

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/RC/		B. Warneke, M. Last, B. Liebowitz, K.S.J. Pister, "Smart Dust: Communicating with a Cubic Millimeter Computer," IEEE Computer Society, Vol. 34, No. 1, January 2001, pp. 44-51	
/RC/		Y.Y. Li, F. Cunin, J.R. Link, T. Gao, R.E. Betts, S.H. Reiver, V. Chin, S.N. Bhatia, M.J. Sailor, "Polymer Replicas of Photonic Porous Silicon for Sensing and Drug Delivery Applications," Science, Vol. 299, March 28, 2003, pp 2045-47	
/RC/		L.T. Canham, C.L. Reeves, A. Loni, M.R. Houlton, J.P. Newey, A.J. Simons, T.I. Cox, "Calcium Phosphate Nucleation on Porous Silicon: Factors Influencing Kinetics in Acellular Simulated Body Fluids," Thin Solid Films, Vol. 297, 1997, pp. 304-307	

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	Applicant: Link et al.	
	Filing Date: 02/06/2006	Group: 1763

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Examiner Initial*	Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate

FOREIGN PATENT DOCUMENTS

	Document Number	Date	Country	Class	Subclass	Translation	
						Yes	No

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

/RC/	Sailor, M.J., "Properties of Porous Silicon," The Institution of Electrical Engineers, pp. 364-370, August 1997.

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